CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 88-072
NPDES NO. CA0029378

WASTE DISCHARGE REQUIREMENTS FOR:

TEXACO USA
5260 MONTEREY HWY.
SAN JOSE, SANTA CLARA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter called the Board) finds that:

1. Texaco USA (hereinafter called the discharger) owns and operates a retail fuel station located at 5260 Monterey Road in the City of San Jose, Santa Clara County. By application dated February 3, 1988, the discharger has applied for issuance of waste discharge requirements and a permit to discharge waste under the National Pollutant Discharge Elimination System (NPDES).

2. Site investigations show that the groundwater beneath the site has been polluted by floating gasoline, dissolved petroleum hydrocarbons, and dissolved benzene, toluene and xylene. The pollution is the result of an unauthorized release of an estimated 6000 gallons of unleaded gasoline from a ruptured underground storage tank which occurred in December, 1984.

3. Forty one monitoring wells have been installed. Groundwater monitoring data indicates that a plume of dissolved product extends vertically to at least a depth of approximately 25 feet and laterally at least 1000 feet from the source. Further studies may be required to define the lateral and vertical extent of the pollution.

4. The discharger proposes to begin cleanup of polluted groundwater by operating an on-site extraction system. Based on the design criteria and the data from the groundwater investigation, it is not clear that the proposed cleanup system will contain and remediate all polluted groundwater. The performance of the cleanup system will be evaluated to determine if any additional extraction wells will be required.

5. Waste 001 will consist of a maximum flow of 57,600 gallons per day (gpd) under initial operating conditions and following any start-up of the treatment system. Under

average operating conditions, the flow will be approximately 36,000 gpd. The polluted groundwater will be pumped from four extraction wells and treated using an air stripper and two carbon adsorption units. The treated ground water will be discharged to a storm drain tributary to Canoas Creek and to the South San Francisco Bay.

6. The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Region (Basin Plan) on December 17, 1987. The Basin Plan contains water quality objectives for Canoas Creek and the South San Francisco Bay, and contains discharge prohibitions applicable to shallow water discharges in these areas.

7. The existing and potential beneficial uses of Canoas Creek are:

    Water Contact Recreation
    Non-contact Recreation
    Wildlife Habitat
    Fish Spawning

8 The existing and potential beneficial uses of South San Francisco Bay include:

    Navigation
    Commercial and Sport Fishing
    Preservation of Rare and Endangered Species
    Fish spawning and migration
    Wildlife habitat
    Shellfish Harvesting
    Estuarine Habitat
    Contact and non-contact water recreation
    Industrial service supply

9. The Basin Plan prohibits discharge of wastewater which has "particular characteristics of concern to beneficial uses" (a) "at any point in San Francisco Bay south of the Dumbarton Bridge" and (b) "at any point where the wastewater does not receive a minimum initial dilution of at least 10:1 or into any nontidal water, deadened slough, similar confined water, or any immediate tributary thereof."

10. The Basin Plan allows for exceptions to the prohibitions referred to in Finding 9 above when it can be demonstrated that a net environmental benefit can be derived as a result of the discharge.

11. Exceptions to the prohibitions referred to in Finding 9 are warranted because the discharge is an integral part of a program to cleanup contaminated groundwater and thereby produce an environmental benefit, and because receiving water concentrations are expected to be below levels that would affect beneficial uses.

12. The Basin Plan prohibits discharge of "all conservative toxic and deleterious substances, above those levels which can be achieved by a program acceptable to the Board, to waters of the Basin." The discharger's extraction and treatment system and associated operation, maintenance, and monitoring plan, constitutes an acceptable control program for minimizing the discharge of toxicants to waters of the State.

13. Effluent limitations of this Order are based on the Basin Plan, State Plans and Policies, and best engineering judgment.

14. The issuance of waste discharge requirements for the discharge is exempt from the provisions of Chapter 3 (commencing with Section 15000), Division 6, Title 14 (Natural Resources) of the California Administrative Code (CEQA) pursuant to Section 13389 of the California Water Code.

15. The issuance of waste discharge requirements for the discharge is categorically exempt from the provisions of Chapter 3, (commencing with Section 15000), Division 6, Title 14 (Natural Resources) of the California Administrative Code (CEQA) pursuant to Section 15107 of that Chapter (Class 8: Actions by Regulatory Agencies for the Protection of the Environment).

16. The Board has notified the discharger and interested agencies and persons of its intent to issue waste discharge requirements for the discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

17. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that the discharger, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Clean Water Act and regulations and Guidelines adopted thereunder, shall comply with the following:

A. Effluent Limitations

1. The effluent at the point of discharge to the storm sewer shall not contain constituents in excess of the following limits:

Constituent	Unit	Instantaneous Maximum
Benzene	ug/l	5.0
Toluene	ug/l	0.5
Xylenes	ug/l	5.0
Ethylbenzene	ug/l	5.0
Total Petroleum Hydrocarbons as Gasoline	ug/l	50

2. The pH of the discharge shall not exceed 8.5 nor be less than 6.5.

3. In any representative set of samples, the discharge of waste shall meet the following limit of quality:

   TOXICITY:

   The survival of test fishes in 96-hour static renewal bioassays of the discharged shall be a median of 90% survival and a 90 percentile value of not less than 70% survival.

   Compliance of the bioassays shall be performed using two test fish species in parallel tests. One shall be three-spined stickleback, and the other shall be either rainbow trout or fathead minnow.

B. Receiving Water Limitations

1. The discharge of waste shall not cause the following conditions to exist in waters of the State at any place:

   a. Floating, suspended, or deposited macroscopic particulate matter or foam;

   b. Bottom deposits or aquatic growths;

   c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;

   d. Visible, floating, suspended, or deposited oil or other products of petroleum origin:

   e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or water fowl, or which render any of these unfit for

human consumption either at levels created in the receiving waters or as a result of biological concentration.

2. The discharge of waste shall not cause the following limits to be exceeded in waters of the State in any place within one foot of the water surface:

a.	pH:	The pH shall not be depressed below 6.5 nor raised above 8.5, nor caused to vary from normal ambient pH levels by more than 0.5 units.
b.	Un-ionized Ammonia:	The concentration of un-ionized ammonia shall not exceed a maximum at any time of 0.4 mg/l as N and an annual median of 0.025 mg/l as N.
c.	Dissolved oxygen:	5.0 mg/l minimum. The median dissolved oxygen concentration for any three consecutive months shall not be less than 80% of the dissolved oxygen content at saturation. When natural factors cause lesser concentrations (s) than specified above, the discharge shall not cause further reduction in the concentration of dissolved oxygen.

3. This discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resources Control Board as required by the Federal Water Pollution Control Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal Water Pollution Control Act or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

Provisions

1. The discharger shall comply with all sections of this Order immediately upon discharge.

3. The discharger shall comply with the self-monitoring

program as adopted by the Board and as may be amended by the Executive Officer.

4. The discharger shall notify the Regional Board if any activity has occurred or will occur which would result in the discharge, on a frequent or routine basis, of any toxic pollutant which is not limited by this Order.

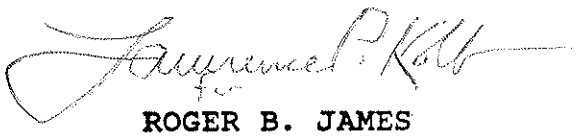
5. The discharger shall submit an operation and maintenance plan acceptable to the Executive Officer if chemical additions are added to the waste stream for the control of scaling or biological growth.

6. The discharger shall comply with all items of the attached "Standard Provisions and Reporting Requirements" dated December 1986, except items B.2, B.3, C.8, and C.11.

7. This Order expires May 18, 1993, and the discharger must file a report of Waste Discharge in accordance with Title 23, California Administrative Code, not later than 180 days in advance of such expiration date as application for issuance of new waste discharge requirements.

8. This Order shall serve as a National Pollutant Discharge Elimination System Permit pursuant to Section 402 of the Clean Water Act, or amendments thereto, and shall become effective at the end of ten days from date of hearing provided the Regional Administrator, U.S. Environmental Protection Agency, has no objection.

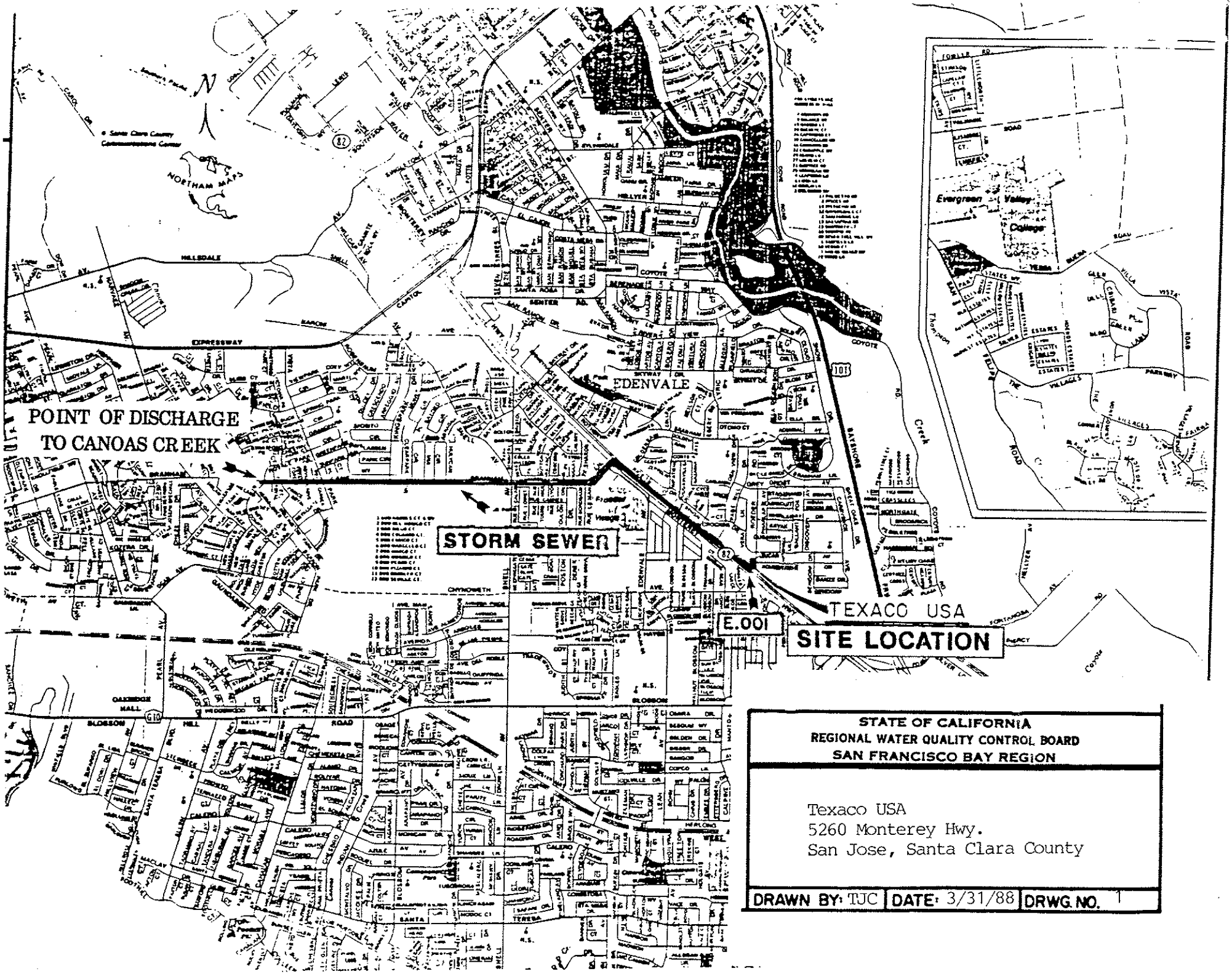
I, Roger B. James, Executive Officer do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region on May 18, 1988.



ROGER B. JAMES
Executive Officer

Attachments:

Standard Provisions & Reporting Requirements, December 1986.
Self-Monitoring Program
Site Map



STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

Texaco USA
5260 Monterey Hwy.
San Jose, Santa Clara County

DRAWN BY: TJC	DATE: 3/31/88	DRWG. NO. 1

Part B

I. DESCRIPTION OF SAMPLING STATIONS

A. INFLUENT

Station	
I-1	At a point in the groundwater extraction/ treatment system immediately prior to any treatment.

B. EFFLUENT

STATION	
E-1	At a point in the groundwater extraction/ treatment system immediately following treatment at a point before discharging into the storm drain leading into Canoas Creek.

C. RECEIVING WATERS

Station	
C-1	At a point at least 100 feet but no more than 200 feet down stream from the point of discharge. If, due to low flow conditions, it is not possible to obtain a water sample in the reach 100 to 200 feet downstream from the point of discharge conditions, then the sample shall be taken from water ponding at the point of discharge. This condition shall be noted in the periodic reports submitted to the Board.

II. MISCELLANEOUS REPORTING

At least 30 days before any chemicals are utilized in or added to the treatment system, they shall be reported to the Executive Officer for review and approval.

III. START-UP PHASE REPORTING

During the start-up phase for the treatment system, sampling of the effluent must occur daily for the first five days. All samples must be submitted to a certified laboratory for

24 hour analyses. On the first day of the start-up phase, the system should be allowed to run for two hours or until stabilized; then, influent and effluent should be sampled and submitted for 24 hr RUSH analyses. Prior to receipt of the results of the initial sampling, any effluent should be directed into a holding tank (i.e. batched; not discharged into the storm drain) until the results of the analyses are known to be within the discharge limitation set in the NPDES permit.

Discharge into the storm drain can only commence after confirmation that the discharge is in compliance with the NPDES discharge limitations. The discharge can continue UNLESS any lab results indicate a violation, in which case the the discharge should be batched or the system should be turned off, the problem corrected, and in some cases a new start-up phase of daily sampling (for 5 days) using 24 hour turn around should be initiated.

After the start-up phase a report shall be submitted to the RWQCB that presents the results of the lab analyses, flow rates, chain of custody forms, and describes any changes or modifications of the treatment system. This report should be submitted to the RWQCB no more than fifteen days after the end of the start-up phase.

IV. SCHEDULE OF SAMPLING AND ANALYSIS

The schedule of sampling and analysis shall be that given in Table 1 (attached).

V. SHUT DOWN REPORTING

A report should be submitted within 15 days of the date of any violation to the RWQCB that describes the violation, the estimated volume of water that was discharged in violation, what corrective action was taken or is planned, and how the discharger will\has verified that future discharges will not impact or threaten to impact waters of the State.

The discharge must be stopped or routed to a holding tank (not discharged into the storm drain) immediately upon laboratory verification that the discharge is in violation of the discharge limitations established in the NPDES permit.

VI. MODIFICATIONS TO PART A

All items of Self Monitoring Part A, dated December 1986 and as modified January 1987 shall be complied with except for the following modifications:

A. Delete Sections D.2.d, D.2.g, E.1.e, and E.4.

B. Add the following as Section F.4:

4. A tabulation shall be maintained showing the total quarterly volume of spent activated carbon (in cubic feet) from each treatment unit and the disposal site location.

C. Section G.4.b shall be changed to read as follows:

Compliance Evaluation Summary

"Each report shall be accompanied by a compliance evaluation summary sheet prepared by the discharger. The report format will be prepared similar to the example shown in APPENDIX A (attached). The discharger will prepare the format substituting for the example parameters those parameters and requirement limits for influent, effluent and receiving water constituents specified in the permit."

D. The first paragraph of Section G.4.d. shall be changed to read as follows:

"Each report shall include tabulations of the results from each required analysis specified in Part B by date, time, type of sample, detection limit, station, and shall be signed by the laboratory director. The report format will be prepared similar to the examples shown in APPENDIX B, substituting those parameters specified in the permit for the parameters given in the example."

E. Information requested under Section G.4.e shall be prepared in a format similar to EPA Form 3320-1 and shall be submitted only to the Regional Board.

F. Section G.5 shall be modified to read as follows:

Annual Reporting

By January 30 of each year, the discharger shall submit in place of the end of the year monthly report, an annual report to the Regional Board covering the previous calendar year. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year. In addition, the report shall contain a comprehensive discussion of the compliance record and the corrective actions taken or planned which may be needed to bring the discharger into full compliance with the waste discharge requirements. The report format will be prepared by the discharger using the examples shown in APPENDIX C (attached) substituting those parameters specified in the permit for the parameters given in the example and should be maintained and submitted with each regular self-monitoring report."

I, Roger B. James, Executive Officer, do hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharger requirements established in Regional Board Order No. 88-072

2. Was adopted by the Board on May 18,1988.

3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger, and revisions will be ordered by the Executive Officer or Regional Board.

Lawrence P. Kolb
for
Roger B. James
Executive Officer

Attachments: Table 1

Appendices: A-E

TABLE 1
SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

SAMPLING STATION >>>>	I-1	E-1	C-1	
TYPE OF SAMPLE	GRAB	GRAB	GRAB	
Flow Rate (gal/day)		C		
pH (units)	D/M	D/M	D/M	
Temperature (deg. C)	D/M	D/M	D/M	
Dissolved Oxygen (mg/l and % saturation)	D/M	D/M	D/M	
Electrical Conductivity	D/M	D/M	D/M	
Priority Pollutant Metals	BA	BA		
EPA 602 for: Benzene Toluene Total Xylenes Ethyl Benzene	D/W/M	D/W/M	D/W/M	
Modified EPA 8015 for Petroleum Hydrocarbons as gasoline	D/W/M	D/W/M	D/W/M	
EPA 601 *	BA	BA		
Toxicity		A		

LEGEND FOR TABLE 1

C = continuous flow readings: report average daily flow based on weekly total
M = once each month
D/M= daily for five days; monthly thereafter.
W/Q/A= once during the first week, then quarterly for 1 year; annually thereafter.
D/W/M= daily samples for the first five days during start-up; weekly thereafter until sufficient data indicates that the system is operating reliably to the satisfaction of the Executive Officer.
BA= once during first day of operation; biannually thereafter.
A= once during first week of operation; annually thereafter.

* The ten largest peaks in the chromatogram, other than the priority pollutants listed in the method, shall be identified.